

MONTHLY WEATHER REVIEW,

JULY, 1878.

WAR DEPARTMENT,

Office of the Chief Signal Officer,

DIVISION OF

TELEGRAMS AND REPORTS FOR THE BENEFIT OF COMMERCE AND AGRICULTURE.

INTRODUCTION.

In compiling the present REVIEW the following data, received up to August 13th, have been made use of, viz: the regular tri-daily weather charts, containing the data of simultaneous observations taken at 116 Signal Service stations and 12 Canadian stations, as telegraphed to this office; monthly journals and means, 121 and 141 respectively, from the former, and monthly means from 14 of the latter; reports from 22 special Sunset stations; 228 monthly registers from Voluntary Observers; 36 monthly registers from United States Army Post Surgeons; Marine Records; International Simultaneous Observations; monthly report of the Weather Service of the State of Iowa; reliable newspaper extracts; special reports.

Instructions have been issued establishing stations of the *1st Class*, as follows:—May 18th, 1878, Deadwood to be discontinued, and Lead City, Dakota, to be established; June 22nd, establishing Columbus, Ohio; July 8th, Atlanta, Ga., Des Moines, Iowa, and Madison, Wis.; July 10th, Chattanooga, Tenn., and Charlotte, N. C. Lead City began reporting June 1st; Columbus, July 1st; Des Moines, August 1st. The following have been announced as *Display Stations*, (for displaying Cautionary Signals,) viz:—September 16th, 1877, Menomonee, Mich., and Sturgeon Bay, Horn's Pier, Kewaunee, Sheboygan, Racine, Green Bay, Kenosha and Manitowoc, Wis., as *Section One*, with Milwaukee as a centre. August 8th, 1878, New Buffalo, Mich., to repeat Chicago signals. January 20th, Ludington, Mich.; July 8th, Pentwater, Traverse City, Frankfort and Northport, Mich.; July 23rd, St. Joseph and South Haven, Mich., as *Section Three*, with Grand Haven as the centre. July 8th, Mackinac, Mich. July 15th, Bay City, East Tawas, Forrester, Port Austin and Rogers City, Mich., as *Section Four*, with Detroit as the centre. July 8th, Monroe, Mich., Fairport and Ashtabula, Ohio, and Dunkirk, N. Y., as *Section Five*, with Cleveland as the centre. July 8th, Charlotte, N. Y., to repeat the Rochester signals. July 8th, Cape Vincent, N. Y., as *Section Six*, with Oswego as the centre. August 1st, Millbridge, Belfast, Deer Island and Booth Bay, Me., and Portsmouth, N. H., as *Section Seven*, with Portland as the centre. August 1st, Newburyport, Thatcher's Island, Marblehead, Highland Light, Chatham, Hyannis and New Bedford, Mass., as *Section Eight*, with Boston as the centre. August 1st, Watch Hill, R. I., to repeat the New London signals. February 25th, Lewes, Del. July 1st, Old Topsail Inlet, (Fort Macon,) N. C.

BAROMETRIC PRESSURE.

Upon chart No. II is shown the general distribution of the atmospheric pressure for the month by the isobaric lines. Compared with the means for July of previous years, the pressure for the present month averages slightly lower for all the districts, except along Lake Superior, where it has been slightly higher.

The Local Barometric Ranges, as reduced to sea-level, for the month, vary as follows: New England, from 0.68 of an inch at New Haven to 0.97 at Burlington; Middle Atlantic States, 0.46 at Cape Henry to 0.69 at Albany; South Atlantic States, 0.36 at Jacksonville to 0.46 at Wilmington; Gulf States, 0.30 at New Orleans to 0.33 at Key West, 0.42 at Corsicana, and 0.54 at Camp Stockton; Ohio valley and Ten-